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Part III DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

2. The disclosure is objected to because of the following informalities: on pages 2 and 26, the missing U.S. serial numbers and filing dates of the related cases should be supplied.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. Claims 7-9 and 15-18 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

 In Claims 7 and 16, "service class field" is undefined. This term's proper scope is indeterminate.

 In Claims 8 and 17, "protocol class field" is undefined.

 In Claim 15, line 2, "the serial FDDI method" should be --a serial FDDI method--.

 In Claim 15, lines 2-3, "ports between said switching device and said transfer devices" lack a proper antecedent basis, since

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it has not been established that there are ports between the switching device and transfer devices.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --
(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims 1, 3, 4, 10, 12, and 13 rejected under 35 U.S.C.

§ 102(e) as being clearly anticipated by Tsutsui et al. 5,060,228 ('Tsutsui').

Tsutsui teaches a packet data communication network with network transfer devices (Bridge Apparatuses) between first and second network segments (LANs) and a switching device (Backbone Network). See Figure 3. The network transfer devices adds and removes a second header containing source and destination switch addresses (Figure 8B). The destination address (MAC address) contains 6 bytes, while the switch address (BBN node address) contains 1 byte (column 4, lines 7-17).

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant

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is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

8. Claims 2, 5, 11, and 14 are rejected under 35 U.S.C. § 103 as being unpatentable over Tsutsui in view of Schroeder et al. 5,088,091 ('Schroeder').

Tsutsui teaches a switching device (BBN 5) comprising switching nodes. Tsutsui does not teach the use of a crossbar switch as the switching device, and source and destination link numbers in the second header.

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Schroeder teaches the use of a crossbar switch in the same field of endeavor for providing the switching function in a network comprising switching nodes (Figures 2 and 8). Additionally, use of source and destination link numbers are associated with Schroeder's crossbar switch (column 27, lines 4-8, and column 28, lines 11-16).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a crossbar switch and its associated use of link numbers in Tsutsui's network switching nodes (BBN) since Schroeder teaches the use of a crossbar switch in such a network of switching nodes.

9. Claims 6 and 15 are rejected under 35 U.S.C. § 103 as being unpatentable over Tsutsui and Schroeder as applied to claims 5 and 14 above, and further in view of Takada et al. 5,220,562 ('Takada').

In Tsutsui, the network segments (LANs) are connected to the Backbone network. Tsutsui does not teach the use of serial FDDI link for the first network segment (LAN). Schroeder does teach that the ports to a crossbar switch are parallel.

In the same field of endeavor, Takada teaches that the network segments (LANs) connected to the Backbone network can be serial FDDI links (Figure 1).

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Therefore, it would have been obvious to use serial FDDI links for the network segments (LANs) in Tsutsui since Takada explicitly teaches such use.

Allowable Subject Matter

10. Claims 7-9 and 16-18 would be allowable if rewritten to overcome the rejection under 35 U.S.C. § 112 and to include all of the limitations of the base claim and any intervening claims.

11. The following is an Examiner's statement of reasons for the indication of allowable subject matter: the prior art of record fails to teach or suggest the added header containing a service class field pertaining to queues as defined in the specification.


Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hart et al. 4,706,081 teach the encapsulation of packets in another backbone network system.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin Marcelo whose telephone number is (703) 305-4373.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.


Melvin Marcelo
September 1, 1993